**POSTER #7**

**ASSESSING CHRONIC HEPATITIS B TRANSMISSION FACTORS AND NATURAL HISTORY IN US AND FOREIGN BORN CHILDREN**

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**BACKGROUND:** In the United States, it is estimated that approximately 25,000 infants are born to mothers who are hepatitis B surface antigen positive annually.1 Of those children infected as infants, 90% of them will develop chronic hepatitis B (CHB).2 Universal immunization programs have decreased the incidence of CHB infection in the United States, however there are still an estimated 1000 infants infected with CHB through vertical transmission each year3.

**METHODS:** We retrospectively studied all patients with CHB seen at our health center’s two pediatrics sites in New York City from May 1, 2015 to June 1, 2016. Chart review included assessment of demographic information, family history of liver disease, most recent hepatitis B serology tests, and treatment plans. We used the American Association for the Study of Liver Diseases (AASLD) criteria to determine patients’ phase of the virus. Patients that did not fit into these criteria were further evaluated.

**RESULTS:** We studied a total of 71 pediatric patients with CHB of whom 49.3% were born in the United States, 45.1% were born in China, and 5.6% were born in South America. Of the 70 pediatric patients with CHB and known family history, 88.6% reported mothers with CHB. Categorization of patients’ current phase of CHB infection revealed 30 patients in the immune tolerant phase, 11 patients in the hepatitis B e-antigen (HBeAg) positive immune active phase, 18 patients in the inactive CHB phase, and 6 patients in the HBeAg negative immune reactive phase. Six out of 71 patients were actively receiving antiviral treatment.

**CONCLUSIONS:** At our health center, approximately half of children with CHB were born in the United States. The high prevalence of patients’ mothers with CHB suggests that vertical transmission of hepatitis B is still prevalent. Maternal data during the prenatal period as well as the hepatitis B vaccination history of the children need to be further examined to better understand the factors increasing risk of vertical of transmission. Further, establishing clear serum alanine aminotransferase normal ranges in children such as those for adults would help with CHB monitoring in the pediatric population.

**CONTENT CATEGORY:** Epidemiology (Retrospective Study)

**KEYWORDS:** *Chronic hepatitis B, Pediatric Patients, Perinatal Transmission, Epidemiology, Public Health*